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OFFICE**

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74	Representative: Dr. Meyer-Dulheuer, 60594 Frankfurt	56	Printed publications taken into consideration for assessing patentability: DE 197 52 164 A1 DE 297 19 026 U1 FR 21 49 214 US 52 01 164 A US 45 66 606 US 42 19 129

54 **Dispenser for moist hygiene paper in roll form**

57 A dispenser (1) for moist hygiene paper in roll form, in particular for moist toilet-paper rolls, comprising a box-like dispenser housing (2) with a base (3), a front wall (4), a rear wall (5) and two side walls (6, 7) arranged therebetween, and with a removal opening (19) in the front wall of the dispenser housing (2), it being the case that the base (3) of the dispenser housing (2) has a concavely curved central base section (9), of which the axis of curvature runs parallel to the front and rear walls (4, 5) of the dispenser housing (2),  
the end edges (10, 11) of the central base section (9), which are located parallel to the side walls (6, 7) of the dispenser housing (2), merge into obliquely upwardly running lateral base end sections (14, 15) via curved lines of inflection (12, 13),  
the base end sections (14, 15) are of flat design and are connected to the side walls (6, 7),  
the lines of inflection (12, 13) are curved inwards,  
the central base section (9) has its smallest length along its longitudinal center line (18), which runs parallel to the axis of curvature,  
the dispenser housing (2) can be closed by means of a lid (8),  
the removal opening (19) is formed in the top border region of the front wall (4), and  
the lid (8), in the region of the removal opening (19), has a projecting part (21), by means of which the removal opening (19) can be covered to the extent where only a slot (22) extending over the entire length of the removal opening (19) remains open.

**DE 199 19 637 C 2**

**FEDERAL REPUBLIC OF GERMANY**

**CERTIFICATE**

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**Patent**

**No. 199 19 637**

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Dispenser for moist hygiene paper in roll form

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Date of Application: 04.30.1999

Munich, 12.05.2002

President of the German Patent and Trademark Office

[Seal of the German

Patent and Trademark Office]

[signature]

Dr. Schade

### Description

The invention relates to a dispenser for moist hygiene paper in roll form, in particular for moist toilet-paper rolls, the dispenser housing being of box-like design with a base, a front wall, a rear wall and two side walls arranged therebetween, and with a removal opening in the front wall of the dispenser housing, it being the case that the base of the dispenser housing has a concavely curved central base section, of which the axis of curvature runs parallel to the front and rear walls of the dispenser housing.

Such a dispenser is known from DE 297 19 026 U1. Hygiene paper is sold in both folded form and roll form. Folded moist tissues are usually supplied in box-like containers. In order for it to be possible for the individual tissues to be reliably removed, and in order to prevent them from drying out in the container, various proposals have been put forward (e.g. US 5,201,164 A and US 4,219,129). Also already available on the market are moisture-retention boxes for moist tissues ("Hakle feucht") with a reclosable lid, it being possible for the folded moist tissues to be reliably stored in said moisture-retention boxes. In contrast, moist tissues in roll form are, in particular moist toilet paper is, still fairly uncommon.

It is known from US 4,566,606 to close the dispenser housing of such a dispenser for moist hygiene paper in roll form by means of a lid, and to form the removal opening in the top border region of the front wall.

DE 197 52 164 A1, furthermore, discloses a holder which is intended for moist toilet paper in roll form and of which the lid, in the region of the removal opening, has a projecting part, by means of which the removal opening can be covered to the extent where only a slot extending over the entire length of the removal opening remains open.

The object of the invention, then, is to provide a dispenser of the type mentioned in the introduction, for accommodating moist hygiene paper in roll form, which is straightforward and reliable to handle and can be installed anywhere and carried along everywhere.

This object is achieved according to the invention by the combination of the features in claim 1. This results in a dispenser for moist hygiene paper in roll form which is straightforward to construct, produce and handle and can easily be accommodated and/or installed anywhere. A further advantage of the dispenser according to the invention is that the moist paper roll need not be secured on a shaft; rather, as a result of the specific configuration of the base and of the removal opening, shape-induced guidance is provided in the dispenser housing and the individual sheets of the paper roll can be conveniently removed. If the end of the paper roll should disappear back into the dispenser housing, it can easily be reintroduced into the removal slot, as a result of the specific configuration of the lid, without the housing having to be destroyed.

In order to facilitate the guidance of the moist paper

roll and the removal thereof, the removal opening, according to a specific configuration of the invention, has a length which is equal to, or slightly greater than, the length of the concavely curved central base section along its longitudinal center line. This ensures rectilinear, i.e. tilting-free and thus reliable unrolling of the paper roll.

The removal opening can be produced in a particularly straightforward manner in that, according to a further configuration of the invention, it is formed in the dispenser housing by an outwardly curved section of the front wall.

In order to facilitate reliable unrolling of the moist paper roll and reliable removal of the individual paper sheets, the development of the idea of the invention provides for the projecting part of the lid to have a curvature which corresponds to the curvature of the outwardly curved section of the front wall.

In order for the removal opening to have a sufficient level of stability, the invention provides for reinforcing ribs to be formed within the outwardly curved section of the front wall. These ribs may be provided during the injection molding of the dispenser housing.

The removal of the individual paper sheets of the moist paper roll is facilitated according to the invention in that an in particular semicircular grip hole is expediently formed in the center of the end section of the outwardly curved section of the front wall.

A fundamental problem in using moist tissues is that

they easily dry out in the containers provided for them. The dispenser housing should thus be of such a nature as to ensure a largely hermetic seal for the moist paper roll arranged in it. This purpose is served by the configuration of the present invention according to which the top border of the dispenser housing is designed as a peripheral projecting rest for the cover. This rest for the cover is expediently formed by a radially projecting wall section which merges into a vertically downwardly extending bearing section. This provides a relatively large bearing surface between the border of the actual dispenser housing and the cover, said surface ensuring, with corresponding accurate processing and/or machining, a tight fit of the cover on the dispenser housing.

In order to ensure this tight fit, a certain level of rigidity is necessary for the border section of the lid. This is achieved, according to a further configuration of the invention, in that the enforcing ribs are formed within the rest for the lid, said rest being formed by the walls of the dispenser housing, the radially projecting wall section and the vertical bearing section.

As a counterpart to the vertically downwardly extending bearing sections of the lid, the latter, according to the invention, has corresponding vertically downwardly running, peripheral retaining sections. These are designed such that they end up butting closely against the bearing sections of the lid. This provides the largely hermetic seal which is required.

In order for it to be possible to close the dispenser

housing in a secured but nevertheless releasable manner by means of the lid, a yet further embodiment of the invention makes provision for an in particular semicircular hinge for opening the lid to be fitted on the downwardly extending retaining section of one side section of the lid. According to the invention, this hinge has both an end which is curved at right angles, and engages in the retaining section of the lid, and a hook which is formed at a distance from the curved end and engages behind the retaining section of the lid and the free end of the vertical bearing section of the dispenser housing.

In order for the lid to be connected in captive fashion to the dispenser housing, it is expediently articulated on the rear wall of the dispenser housing along its rear end.

In order for it to be possible to construct the dispenser housing in as compact a manner as possible, it be necessary to ensure, on the one hand, reliable guidance of the moist paper roll in the housing and, on the other hand, that the paper roll can be unrolled reliably and easily, it has proven expedient for the angle between the central base section and the obliquely upwardly running lateral base end sections to be preferably 115°.

Further features, advantages and possible applications of the invention can be gathered from the following description of an exemplary embodiment and the drawing. In this case, all the features described and/or illustrated form, alone or in any desired combination, the subject matter of the invention, irrespective of how they are summarized in the claims or how



they relate back to preceding claims.

In the drawing:

Figure 1 shows a side view of a dispenser housing according to the invention with a lid,

Figure 2 shows a perspective view, obliquely from above, of the dispenser housing lid according to figure 1 illustrated in the open state,

Figure 3 shows a side view of the dispenser housing according to figure 1,

Figure 4 shows a section through the dispenser housing according to figure 3,

Figure 5 shows a section through the dispenser housing with lid along line B-B in figure 6,

Figure 6 shows, in a view from behind, a longitudinal section through the dispenser housing with lid,

Figure 7 shows an enlarged illustration of a section through the top part of the dispenser housing with the lid placed in position,

Figure 8 shows a side view of the dispenser housing with lid illustrated in the open state according to figure 2,

Figure 9 shows a view from above of the dispenser housing with lid in the open state illustrated according to figure 2, and

Figure 10 shows a view from beneath of the dispenser housing with the lid placed in position.

The dispenser 1 which is illustrated in the figures and is intended for accommodating moist hygiene paper (not

illustrated) in roll form, in particular moist toilet-paper rolls, comprises a dispenser housing 2 which has a base wall 3 and a front wall 4, a rear wall 5 and two side walls 6 and 7 arranged therebetween. A lid 8 is fastened in a releasable manner on the dispenser housing 2.

The base 3 has a concavely curved central base section 9, of which the axis of curvature runs parallel to the front and rear walls 4 and 5 of the dispenser housing. As can be seen from figures 6 and 10 in particular, the end edges 10 and 11 of the central base section 9, which are located parallel to the side wall 6 and 7 of the dispenser housing 2, merge into obliquely upwardly running lateral base end sections 14 and 15 via curved lines of inflection 12 and 13. The angle  $\alpha$  between the central base section 9 and the adjacent base end sections 14 and 15, in the exemplary embodiment illustrated, is  $115^\circ$ . The base end sections 14 and 15 are of flat design and are connected to the side walls 6 and 7 at 16 and 17. As can be seen from figure 10, the lines of inflection 12 and 13 are curved inward such that the central base section 9 has its smallest length along its longitudinal center line 18, which runs parallel to the axis of curvature.

The removal opening 19, which is illustrated in figures 1 and 5, is provided in the top border region of the front wall 4 and is formed by an outwardly curved section 20 of the front wall 4. The lid 8 has, as counterpart, in the region of the removal opening 19, a projecting part 21, by means of which the removal opening 19 can be covered to the extent where only a

slit 22 extending over the entire length of the removal opening 19 remains open. In this case, the projecting part 21 of the lid 8 has a curvature which corresponds to the curvature of the outwardly curved section 20 of the front wall 4.

Reinforcing ribs 23 are formed within the outwardly curved section 20 of the front wall 4 (figure 10), the removal opening 19 being provided with a sufficient level of rigidity on account of said reinforcing ribs. In order to facilitate the removal of individual paper sheets from a moist paper roll (not illustrated), a semicircular grip hole 25 is formed in the center of the end section 24 of the outwardly curved section 20.

The top border 26 of the dispenser housing 2 has a peripheral projecting rest 27 for the lid 8 (figures 3 and 4). The rest 27 is formed by a wall section 28 which projects radially from the top border 26 and merges into vertically downwardly extending bearing section 29. In order to reinforce the rest 27, which is formed by the walls 4, 5, 6 and 7 of the dispenser housing 2, the radially projecting wall section 28 and the vertical bearing section 29, reinforcing ribs 30, which are illustrated in figure 10, are formed between these.

In order to allow the tightest possible feel between the dispenser housing 2 and the lid 8, the lid 8 has vertically downwardly extending peripheral retaining sections 31 corresponding to the bearing sections 29 (figure 7). The bearing sections 29 and the retaining sections 31 are dimensioned such that, when the lid 8 is closed in position on the dispenser housing 2, the retaining section 31 formed on the lid 8 cover

over, in a form-fitting manner, the bearing sections 29 formed on said dispenser housing. This ensures a tight fit of the lid 8 on the dispenser housing 2.

In order that the dispenser housing 2 can be closed in a secure but also releasable manner by means of the lid 8, a semicircular hinge 33 for opening the lid is fitted on the downwardly extending retaining section 31 of one side section 32 of the lid 8. As can be seen from the enlarged illustration in figure 7, this hinge has an inwardly directed end 34 which is curved at right angles, engages in the retaining section 31 of the lid 8 and is firmly connected thereto. Formed on the hinge 33 at a distance from the curved end 34 is an inwardly projecting hook 35 which, when the lid is placed in position, engages behind the retaining section 31 of the lid 8 and the free end of the vertical bearing section 29 of the dispenser housing. In order to release the connection, all that is required is for the free end of the hinge 33 to be bent some way forward, as a result of which the hook 35 disengages from the free end of the bearing section 29 of the dispenser housing and thus frees the lid 8.

In order for the lid 8 to be connected in captive fashion to the dispenser housing 2, it is connected in a movable manner, along its retaining section 31 which is formed on the side section 36, which is located opposite the side section 32, to the bottom border 37 of the bearing section 29 formed on the side wall 7 of the dispenser housing 2.

As can be seen from figure 10, the removal opening 19

has a length which is equal to, or slightly greater than, the length of the concave curved central base section 9 along its longitudinal center line 18. This ensures rectilinear and thus reliable unrolling of the paper roll (not illustrated).

The dispenser functions as follows:

A commercially available moist hygiene-paper roll, in particular a moist toilet-paper roll, of which the width corresponds to the length of the central base section 9 along its longitudinal center line 18, is positioned in the dispenser housing 2. The obliquely running base end sections 14 and 15 ensure that the paper roll aligns itself in the dispenser housing such that it rests in a planar manner on the concavely curved central base section 9. Thereafter, the end of the paper roll is guided outward through the slot 22 of the removal opening 19 in the front wall 4 of the dispenser housing. At the same time, the lid is closed and fastened by means of the hinge 33.

# Patent Claims

1. A dispenser (1) for moist hygiene paper in roll form, in particular for moist toilet-paper rolls, comprising a box-like dispenser housing (2) with a base (3), a front wall (4), a rear wall (5) and two side walls (6, 7) arranged therebetween, and with a removal opening (19) in the front wall of the dispenser housing (2), it being the case that the base (3) of the dispenser housing (2) has a concavely curved central base section (9), of which the axis of curvature runs parallel to the front and rear walls (4, 5) of the dispenser housing (2), the end edges (10, 11) of the central base section (9), which are located parallel to the side walls (6, 7) of the dispenser housing (2), merge into obliquely upwardly running lateral base end sections (14, 15) via curved lines of inflection (12, 13), the base end sections (14, 15) are of flat design and are connected to the side walls (6, 7), the lines of inflection (12, 13) are curved inwards, the central base section (9) has its smallest length along its longitudinal center line (18), which runs parallel to the axis of curvature, the dispenser housing (2) can be closed by means of a lid (8), the removal opening (19) is formed in the top border region of the front wall (4), and the lid (8), in the region of the removal opening (19), has a projecting part (21), by means of which the removal opening (19) can be covered to the extent where only a slot (22) extending

over the entire length of the removal opening (19) remains open.

2. The dispenser as claimed in claim 1, wherein the removal opening (19) has a length which is equal to, or slightly greater than, the length of the concavely curved central base section (9) along its longitudinal center line (18).

3. The dispenser as claimed in claim 1 or 2, wherein the removal opening (19) in the dispenser housing (2) is formed by an outwardly curved section (20) of the front wall (4).

4. The dispenser as claimed in one of claims 2 to 3, wherein the projection part (21) of the lid (8) has a curvature which corresponds to a curvature of the outwardly curved section (20) of the front wall (4).

5. The dispenser as claimed in claim 3 or 4, wherein reinforcing ribs (23) are formed within the outwardly curved section (20) of the front wall (4).

6. The dispenser as claimed in one of claims 2 to 5, wherein an in particular semicircular grip hole (25) is formed in the center of the end section (24) of the outwardly curved section (20) of the front wall (4).

7. The dispenser as claimed in claim 1, wherein the top border (26) of the dispenser housing (2) is designed as a peripheral projecting rest (27) for the lid (8).

8. The dispenser as claimed in claim 7, wherein the rest (27) for the lid (8) is formed by a radially projecting wall section (28) which merges into a vertically downwardly extending bearing section (29).

9. The dispenser as claimed in claim 8, wherein reinforcing

ribs (30) are formed beneath the rest for the lid (8), said rest being formed by the walls (4, 5, 6, 7) of the dispenser housing (2), the radially projecting wall section (28) and the vertical bearing section (29).

10. The dispenser as claimed in one of the preceding claims, wherein the lid (8) has vertically downwardly running, peripheral retaining sections (31).

11. The dispenser as claimed in one of the preceding claims, wherein an in particular semicircular hinge (33) for opening the lid is fitted on the downwardly extending retaining section (31) of one side section (32) of the lid (8).

12. The dispenser as claimed in claim 11, wherein the end (34) of the hinge (33), said end being curved at right angles, engages in the retaining section (31) of the lid (8), and a hook (35), which is formed on the hinge (33) at a distance from the curved end (34), engages behind the retaining section (31) of the lid (8) and the free end of the vertical bearing section (29) of the dispenser housing (2).

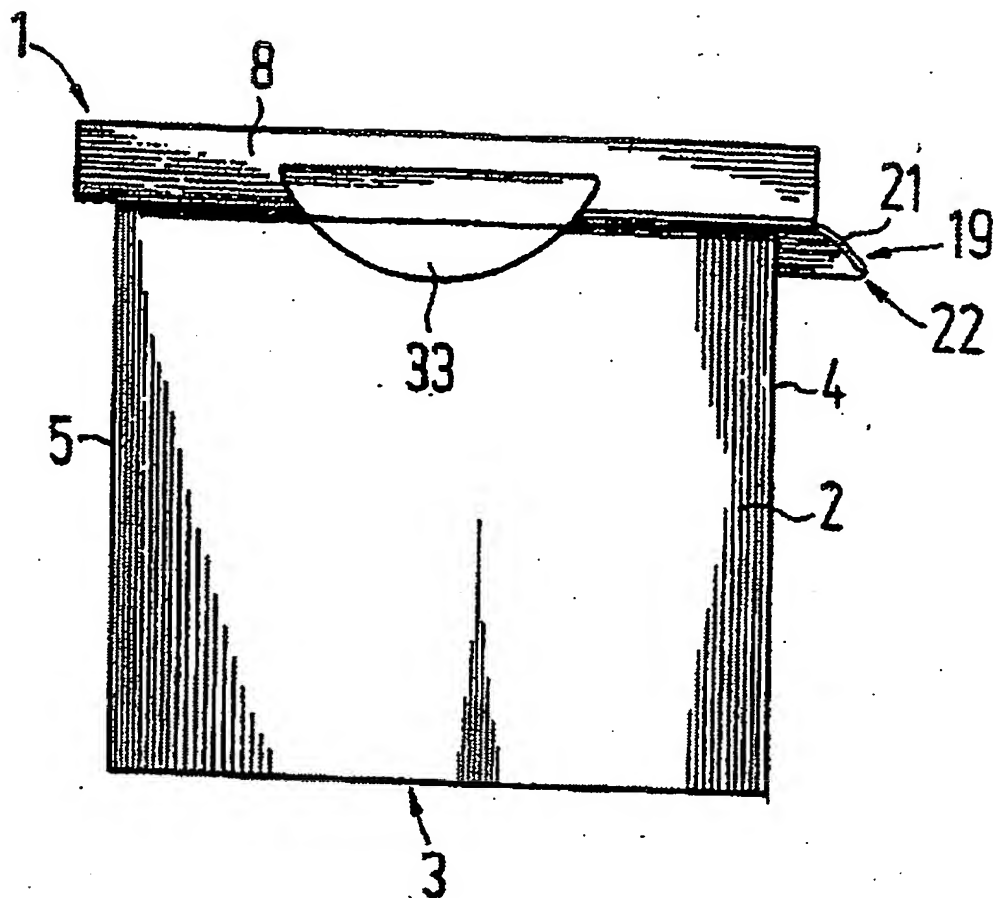
13. The dispenser as claimed in one of the preceding claims, wherein the lid (8) is articulated on the top border of the side wall (7) of the dispenser housing (2) along its retaining section (31) which is formed on the side section (36), which is located opposite the side section (32).

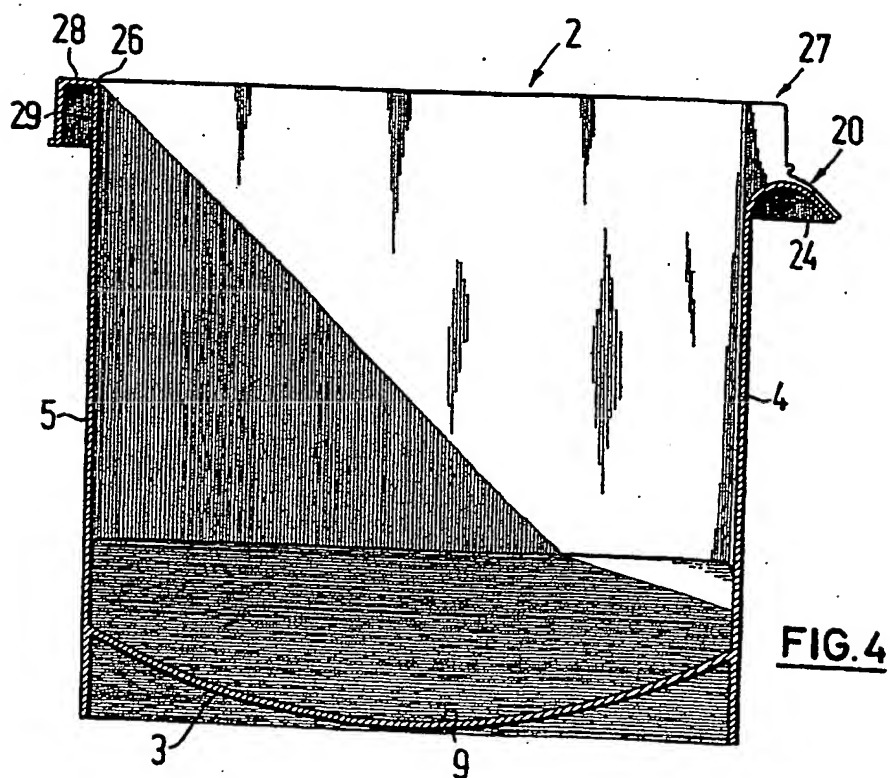
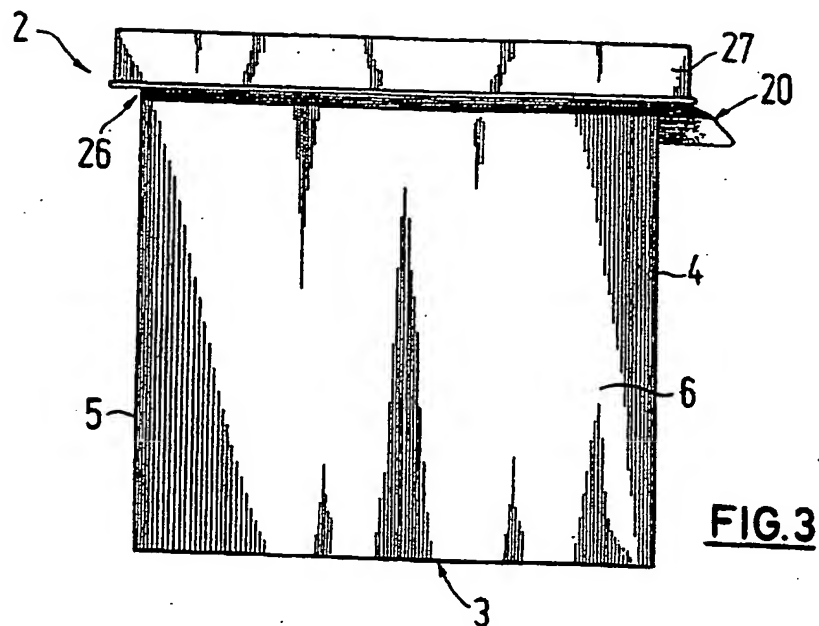
14. The dispenser as claimed in claim 1, wherein the angle ( $\alpha$ ) between the central base section (9) and the obliquely upwardly running lateral base end sections (14, 15) is preferably  $115^\circ$ .

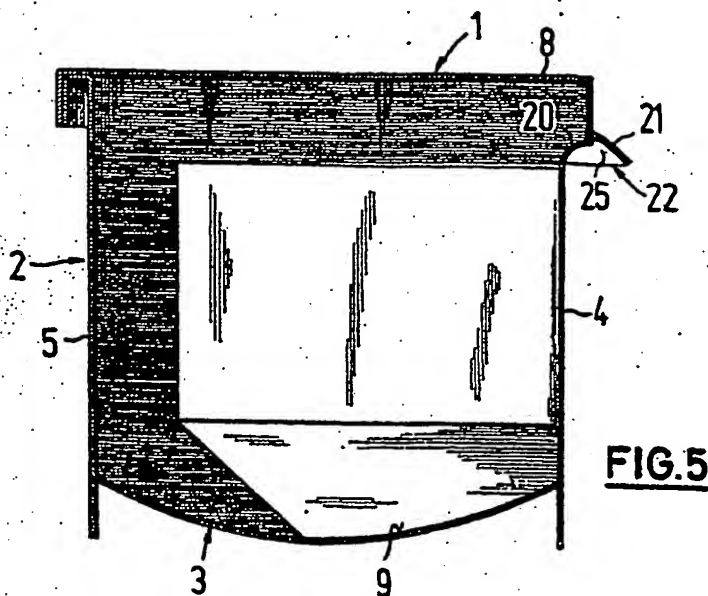


## Abstract

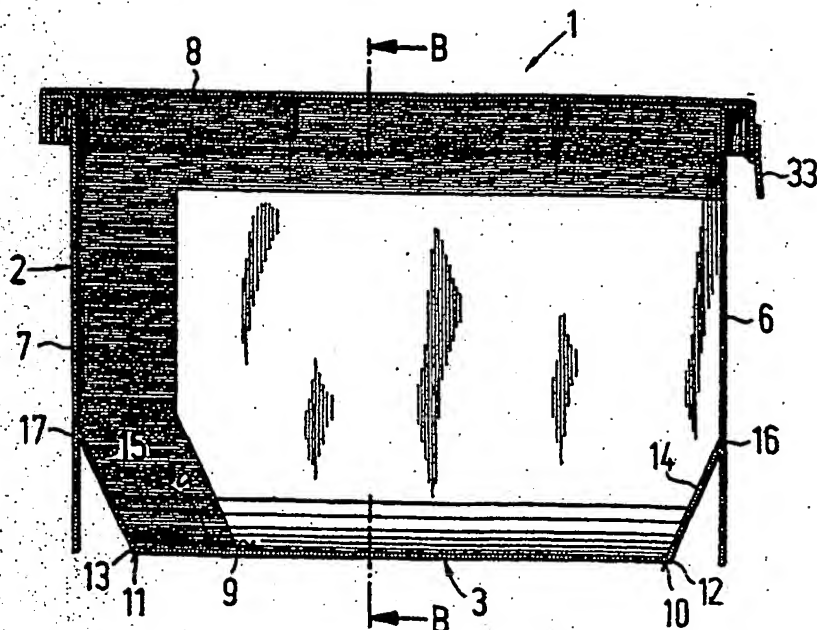
A dispenser (1) for moist hygiene paper in roll form, in particular for moist toilet-paper rolls, comprising a box-like dispenser housing (2) with a base (3), a front wall (4), a rear wall (5) and two side walls (6, 7) arranged therebetween, and with a removal opening (19) in the front wall of the dispenser housing (2), it being the case that the base (3) of the dispenser housing (2) has a concavely curved central base section (9), of which the axis of curvature runs parallel to the front and rear walls (4, 5) of the dispenser housing (2), the end edges (10, 11) of the central base section (9), which are located parallel to the side walls (6, 7) of the dispenser housing (2), merge into obliquely upwardly running lateral base end sections (14, 15) via curved lines of inflection (12, 13), the base end sections (14, 15) are of flat design and are connected to the side walls (6, 7), the lines of inflection (12, 13) are curved inwards, the central base section (9) has its smallest length along its longitudinal center line (18), which runs parallel to the axis of curvature, the dispenser housing (2) can be closed by means of a lid (8), the removal opening (19) is formed in the top border region of the front wall (4), and the lid (8), in the region of the removal opening (19), has a projecting part (21), by means of which the removal opening (19) can be covered to the extent where only a slot (22) extending over the entire length of the removal opening (19) remains open.



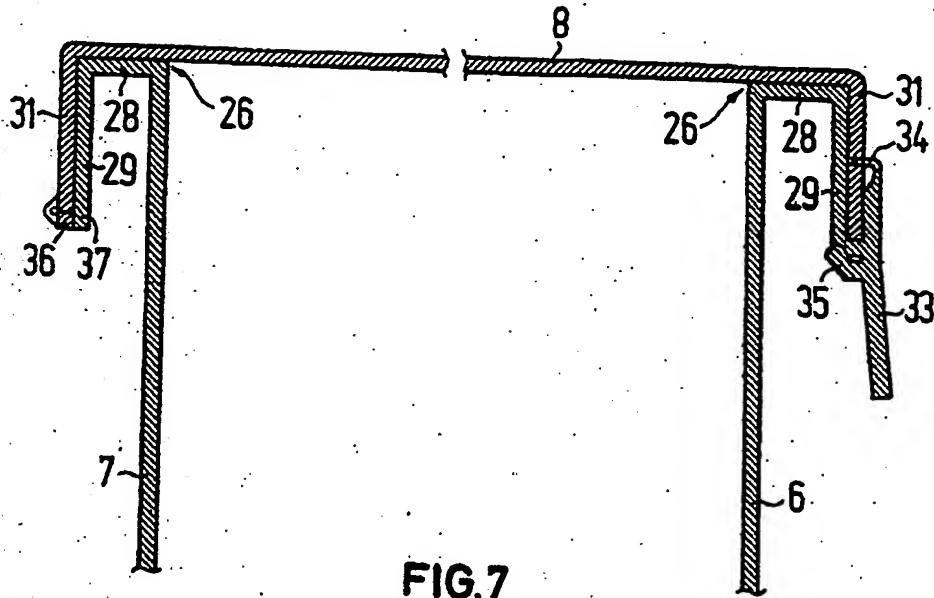




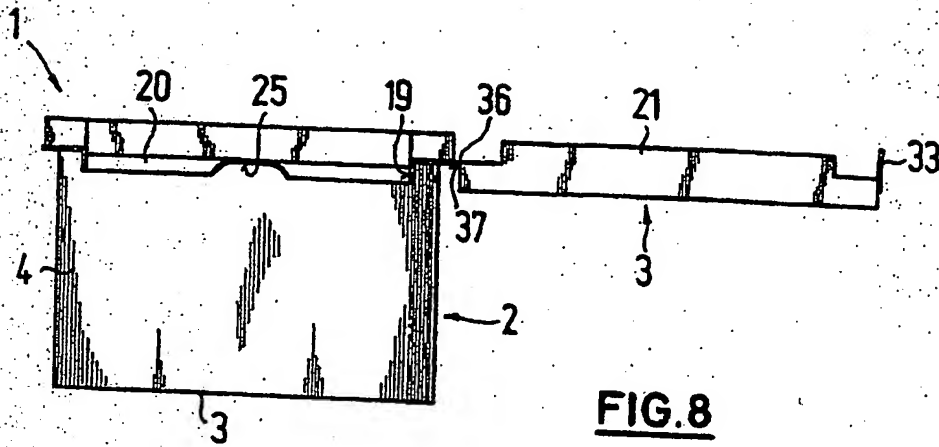
**FIG. 5**



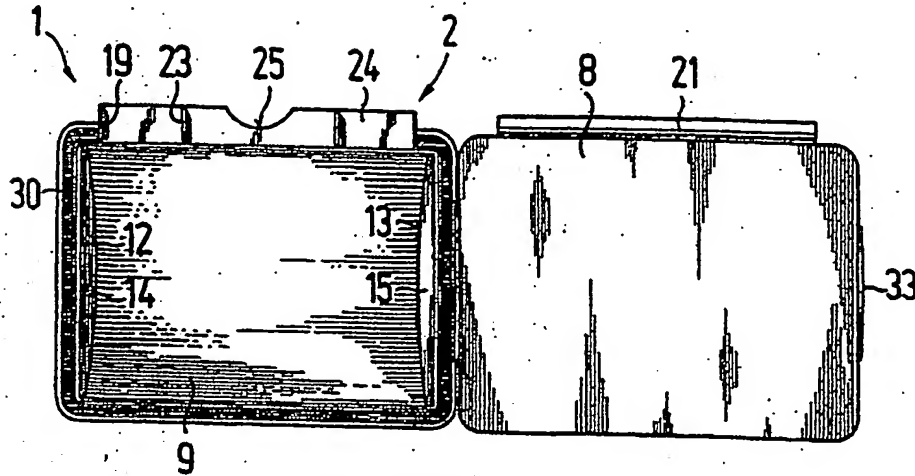
**FIG. 6**



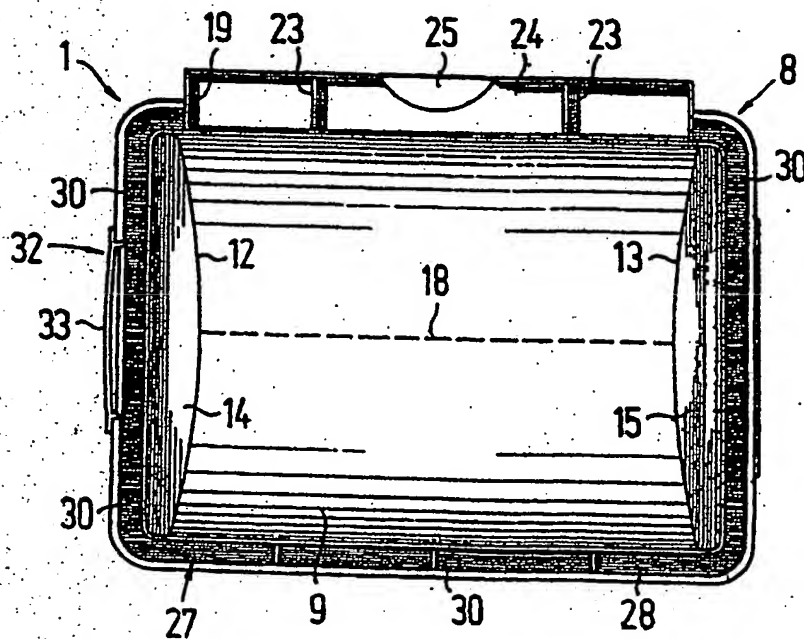
**FIG. 7**



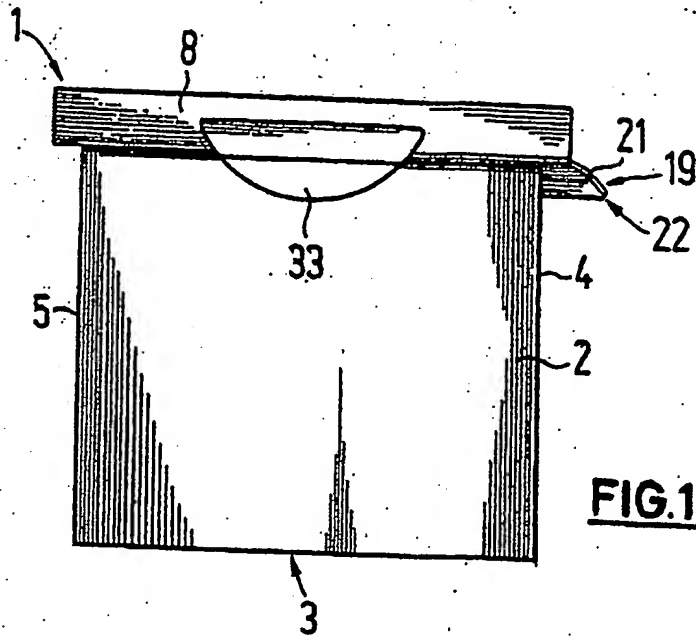
**FIG. 8**



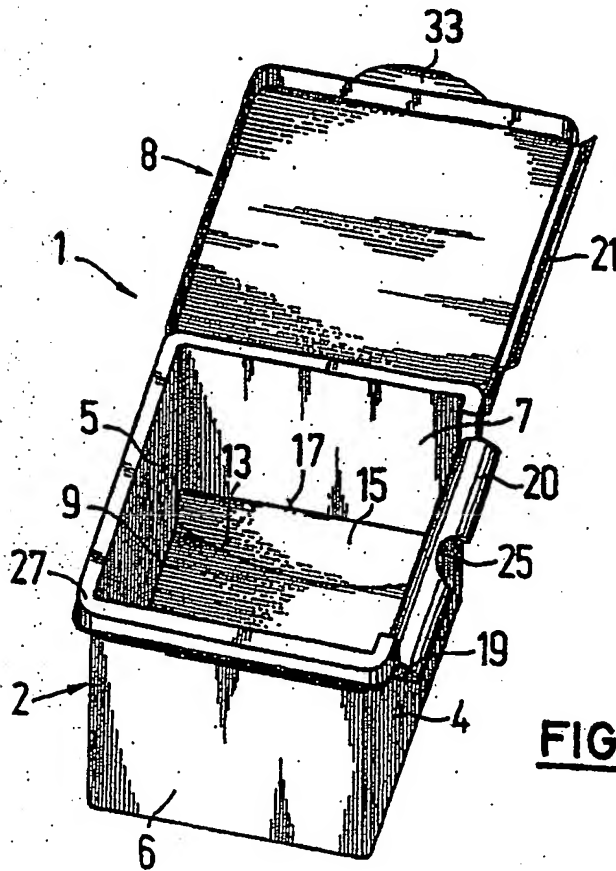
**FIG. 9**



**FIG. 10**



**FIG. 1**



**FIG. 2**

# Translator's Report/Comments

Your ref: DE 199 19 637 C2      Your order of (date): 01.10.2003

In translating the above text we have noted the following apparent errors/unclear passages which we have corrected or amended:

Page/para/line*	Comment
2/54-55	`den Deckel ...dem Spendergehäuse' → `das Spendergehäuse ... dem Deckel'
4/24	`5,6 und 7' → `4,5,6, und 7'
6/15	Insert comma after `(2)'
6/34	`des Halteabschnitts' → `den Halteabschnitt'

\* This identification refers to the source text. Please note that the first paragraph is taken to be, where relevant, the end portion of a paragraph starting on the preceding page. Where the paragraph is stated, the line number relates to the particular paragraph. Where no paragraph is stated, the line number refers to the page margin line number.